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N. E. FARMER.

For the New England Farmer.

ESSAY ON THE SILK CULTURE,

And New System of France and of Eastern Asia.

Silk is destined to become ere long, one of our most important agricultural productions. The great interests of our country and, its peculiar situation and circumstances, demand the change. Our immense importations of iron, of wine, of silk, and of manufactures, so far exceeding all our exports, have inflicted upon the country a large foreign debt; this being one of the main causes of all our troubles, and of the continual recurrence of disastrous times.

Hitherto the silk culture has been earnestly recommended by many of its strenuous friends, but only and exclusively as a profitable domestic occupation, and only on a small scale. I shall endeavor to prove by authentic testimony and conclusive evidence, that the silk culture, like most other agricultural operations, may also be carried on in large establishments, and on a great scale, with far superior profits.

One of the most celebrated of the English writers on the useful arts and manufactures, is Dr Andrew Ure; and on agriculture, one of the most distinguished is M. Puvis, president of the agricultural society of Ain, in France. The subject of silk having been fully investigated by both, both writers being especially of the latest day, and both having in their remarks a particular reference to France. In a great part of that country, the soil and climate being favorable, both authorities concur in stating, that the planting of the mulberry trees and the raising of silk worms, are in this day the most profitable of all agricultural pursuits.

During the last ten years we have imported more than $41,000,000 of wines, $118,000,000 of silks, and $84,000,000 of iron. In all $243,000,000, and all for articles which may be produced in abundance from our own soil.

Our excessive importations impoverish the country. In 1839 our exports of domestic productions were but $97,000,000, while our imports from foreign countries were over $170,000,000. Of this amount about $30,000,000 may be exported, leaving a balance of over $44,000,000, to be paid for in gold and silver.

It is the policy of Britain to raise, to make, and to sell all they possibly can to other nations; while from those other nations they will receive nothing in return which they themselves can either make or produce; all these being excluded from their ports, either by heavy duties or by prohibitions. Thus while we receive nothing from them which we cannot ourselves either make or produce by our own industry, and from our own soil, they will purchase little or nothing else from us in return, except only our cotton, our silver and our gold. This policy of theirs, while it enriches them, impoverishes us, and should be resisted on our part by remonstrance, or by the laws of retaliation, as opposed to those first principles of reciprocal and "equal rights and free trade," for which we so earnestly and justly contend.

In England, first of all countries for its agriculture, yet owing to the coldness and humidity of their climate, they cannot raise silk, how muchsoever they consume. In Europe, they usually lose from 35 to 60 per cent. of their silkworms, while in China they often lose not one in a hundred. In America it is the same, and from the same causes.

China, the native country of the silkworm, possesses a peculiar climate and country—a perfect parallel to which is to be found in no other country but our own. The French missionaries who had resided previously in America, have borne testimony to this striking similitude and important fact at a very early day. The geographical position of both and of each country is similar and alike; *each having its own vast ocean on the east.* By these extraordinary circumstances and this remarkable coincidence, is the climate of each country modified and controlled. In the middle latitudes of these countries, the prevailing winds for a considerable part of the year being from the west and northwest, and coming over a great extent of land, are dry and salubrious: they always bring fair weather, and delightful and bright sunny days. These winds are the counter currents of those trade winds which blow so continually and in the contrary direction within the tropics.

In Europe, this peculiarly favorable position is reversed; the climate of that country being modified and controlled by *an ocean lying on the west and on the north*; and the prevailing or westerly winds, blowing as they do direct from the ocean, they carry from thence tempestuous storms of rain, with clouds of aqueous vapors, which dissolve the snows of winter: during a considerable portion of the year, the sun's bright rays with their cheering and soul-reviving influence, are not seen.

Serene skies and days of unusual brightness are the characteristics of our climate. With a pure atmosphere and an elevated temperature, the growth of the silkworms to maturity is rapid and wonderful. The mulberry from China, which is so eminently adapted to afford a succession of food for numerous crops in a season, is also of a rapid and prolonged growth. Those serene skies and continuous days of heat and of sunshine, are necessary duly to ripen and to prepare the juices of the plant; yet in the valleys of our great northern rivers, in every interior vale and low and extended plain of the north, this mulberry is liable to suffer injury in its tops. In spring they rise up with a luxuriance of vegetation the most extraordinary. Such is our climate, those days of unusual brightness being alone all-sufficient fully to elaborate the juices of the leaf, as has been amply proved, thus converting them into the most healthy and nutritious food. Yet at Nonantum hill, and in an elevated and bleak situation, I have several trees of the morus multicaulis, of considerable size and vigorous growth, which, unprotected, have braved the rigors of the last winters and remain uninjured to this day. It is not thus in every vale. At Portsmouth, in Lower Virginia, and in latitude 37° 12, and where I often visited during the year 1839, I found this tree in its hardihood bearing resemblance to the oak.

Many oppose the introduction of the silk business into our own country, by perpetually reminding us of the low price of labor in Hindostan and other countries, and the high price of labor in our own. The same arguments, if arguments they may be called, will apply in a greater or less degree to almost every branch of industry which we pursue, either in manufactures or in agriculture, but least of all can they justly be applied to any of the productions of our agriculture—silk being especially an agricultural production.

Can the poor Hindoo compete with the anglo-Saxon? We have seen a vast country in India, with a population of a hundred millions, brought into subjection by conquest, and still held in bondage by an army of from one to two hundred thousand Britons: thus from 500 to 1000 Hindoos are held in abject submission by the power of each single anglo-Saxon, and in that proportion they still hold a vast empire. It is absurd to talk of competition between the American free people and such nations as these. In that country men perform those same labors which in ours are performed by animal power, or by horses and oxen.

The vast power of Britain has its foundation chiefly in their agriculture, in which they surpass all other nations; also in their mines of coal and iron. With these last, engines and machinery are formed, which, applied to their commerce and manufactures, perform labors equivalent to 100,000,000 of hands. But in their agricultural operations, animal power is chiefly employed. According to a late distinguished statistical writer, the amount of human labor employed in agriculture in England, is 5,000,000 of all descriptions of persons; or equivalent only to 2,132,446 effective men power; while the power of horses and oxen, or the animal power which is so employed, is equivalent to 22,500,000 effective men power; or ten times as great as the human power so applied. But in America, the proportion of animal power employed in agriculture, is transcendantly great, and far exceeding any thing that is known in the old world.

In our mines of coal, in our rivers and never-failing streams, we have also the abundant water power, and exceeding that of any other country or nation. By aid of this power and our machinery, a girl will spin a quantity of cotton in a day which would require the labor of 500 girls by the old mode, or of 500 Hindoos. In old countries, where labor is cheap, cultivation is performed in a great measure by manual labor and the spade. In our own country, our lands being both fertile and cheap, and pasture being abundant, we are enabled cheaply to maintain the vast animal power; the plough being truly the American instrument, by aid of these we are enabled to cultivate those lands far cheaper than they can be cultivated in any of those countries where labor is cheap and land dear. The silkworms require the abundant food and pasture all which we are thus enabled cheaply to provide;

our horses and oxen performing these labors of men in our agricult re, enable us to cultivate those lands far cheaper than by any other mode.

I hail the progress of every improvement, whether in our own country or in whatever country found. First of all we shall inquire what has been done, and what now is doing in those countries where silk has long been cultivated, or from time immemorial;—those countries of Europe and of Asia especially, from whence so lately we derived all our knowledge of the precious insect and of the plant on which it feeds. We must visit those nations in all their improvements, as they have visited ours. At the experimental silk farm which was established near Paris about ten years since by the government of France, and under the superintendence of M. Camille Beauvais, a new system of managing the silkworms has been established, the results of which are alike sure, infallible and extraordinary. These results have very lately been published in that country by authority, and by the direction of the French Minister of Commerce and Agriculture. By this system, all the wants of the silkworm having been made known by new discoveries, and being now for the first time fully understood, losses from disease are no longer known: they complete their course quickly, or in from 22 to 25 days, with great economy of time, of labor, of food, and of all things else, and with augmented production. Already and previous to the year 1835, by his extraordinary management, had M. Beauvais succeeded in producing thirteen pounds of silk from the same number of silkworms, which in France usually produce but five pounds, and in Italy seven and a half pounds, and in India twenty pounds, and even in that cold climate he then expected soon to be able to produce an equal number of pounds. In the year 1837 was he enabled to produce 185 pounds of cocoons from 2000 pounds of leaves, and from that same number of silkworms or 40,000, which, being of a size so superior, must have been more than sufficient for the production of 20 pounds of reeled silk.

In their native condition, the silkworms are exposed to dangers continually, either from furious storms or from devouring foes. When worms suffer from cold, they consume their food but slowly; or if fed only at long intervals, or only by day and never during the night, a large portion of their food becoming dry, is consequently wasted:—the worms suffer not only by hunger, but also by tormenting thirst; they suffer also doubly after fasting during a long night, from the voracity with which they devour their food in the morning.

When silkworms thus suffer, their labors are prolonged to a very late period of time, or from eight to eleven weeks, the cocoons thus produced. being of inferior size, the thread slender and feeble, liable to break in reeling, and consequently causing both trouble and waste; and it is agreed that those worms which thus linger, forming small cocoons, consume full as much food as those which form cocoons of large size. Even when forming their cocoons, if the silkworms suffer by cold, they suspend their labors, the silk in their stomachs becoming congealed. If neglected at this critical period, they enter at once the chrysalis state, leaving incomplete their cocoon or silken tomb.

The silkworm is a cold-blood insect, its temperature that of the atmosphere in which it breathes; its vital energies are wonderfully accelerated by heat and retarded by cold: 77° as now discovered, is its proper element, or that wherein it flourishes to perfection, but a little more elevated during the first two or three days. In this elevated temperature, and in a pure atmosphere, it consumes its food rapidly, requiring feeding constantly, not only by day, but equally so during night. In this temperature it completes its course quickly or in from 22 to 24 days, when it begins its cocoon, which it finishes suddenly, working night and day continually during three days. The cocoons thus produced, being invariably very large, the filament substantial and strong, not liable to break in reeling, or to waste; less than nine pounds of cocoons of a superior size and quality being sufficient for a pound of reeled silk. The economy in regard to food, by this system of constant feeding being also very great.

According to the authority of the Chinese treatises, and also the high authority of M. Camille Beauvais, while the French have usually lost near fifty in an hundred of their silkworms, the Chinese hardly lose one in an hundred. This small loss in China is to be ascribed, in part, to their superior climate, so much resembling our own; in part also it may be ascribed to their rejecting in the first instance, and invariably, those few worms that hatch first; but principally their extraordinary success is ascribed to their subsequent treatment of the insects, and to the great attention which they bestow on them—to their constant and night feeding, as well as by day, and particularly to their modes contrived for the purposes of ventilation, and for the preservation of a high and suitable temperature.

At the government establishment or experimental silk farm near Montgeron, in the north of France, M. Camille Beauvais, the superintendent, has adopted with signal success, the more complete system of ventilation and of warming the apartments, invented by M.D'Arcet. By this system, a high temperature being at all times preserved, the silkworms are fed twentyfour times a day for three days, during the first age; eighteen times a day during the second age; twelve times a day during the third and fourth ages; eight times during the fifth or last and longest age, during which they eat many times more food than during all the previous ages. The most perfect cleanliness being at all times preserved as indispensable. In conjunction also with this high temperature and continued feeding, by night as well as by day, a certain degree of moisture or dampness is indispensable, since it is found that a drying heat has the effect not only to absorb suddenly *all* the moisture of the leaves, thus rendering them unfit for food, but it absorbs also the moisture from the lungs and bodies of the insects. With a temperature of 81 to 84° of Fahrenheit, a degree of moisture must be preserved equal to from 85 to 89° of Sussures' hygrometer. Without this suitable degree of moisture, a high temperature was found by M. Beauvais to be utterly destructive. The same destructive effect it is well known is produced on the human system from similar causes. By this system of management, he has also ascertained that the worms eat more, while the consumption of leaves is diminished, because they make much less litter and waste: the education being completed with a very great saving of time, and consequently economy in all things. So great was this saving, that in 1836, the whole process was completed in 21 days, while in a common temperature it lasts usually from 31 to 33 days.

I have stated as the results of his experiments in 1837, at 185 pounds of cocoons, the product of 40,000 silkworms, and but 2000 pounds of leaves—cocoons of this superior size being sufficient to produce 20 pounds of reeled silk.

The honor of the introduction of this system to America, is justly due to Messrs Cheney, of Burlington, New Jersey. In 1839 they tried the system, but without the apparatus of M. D'Arcet, which it was impossible then to obtain. Their success being wonderful; in 24 days the silkworms finished feeding, the product being 178 pounds of cocoons of the largest size, or 225 to the pound, with the consumption of 2000 pounds of leaves, or in that proportion. They are now making preparations for a complete and perfect trial of the system in all its parts, during the present summer, and with the aid of D'Arcet's system of ventilation: the results of this system being the most sure and infallible. The synoptical table containing a complete development of this system, and published by the French Minister of Commerce and Agriculture, has been republished in America by them. In that table the temperature, as there designated, is preserved at 77° generally. Four of those original tables have during the last month, been sent to me from France.

In describing the outline of M. D'Arcet's system of ventilation and "salubrious cocoonery," we suppose an oblong building, with four ranges of hurdles. In the cellar of such a building, and at one end, a stove is placed, a little elevated. This stove may consist of a plain common box stove, or a plain sheet iron air tight stove, of Olmstead's or any other pattern, which is found to consume an incredibly small quantity of fuel. This stove is surrounded on all sides except the front, with rough masonry, from the bottom of the cellar to the floor above, leaving a narrow space or cavity on three sides of the stove, this being the air chamber:—within this air chamber or narrow space, the cold air entering at the bottom becomes heated, and rising to the height of the floor above and thence dividing into four main branches, it is carried by four main wooden tubes beneath the floor, also beneath the hurdles: it escapes upwards through the floor by square holes, at intervals of about 2 1-2 feet asunder—the first hole being an inch square, the size increases in arithmetical progression as it proceeds, because the current diminishes in velocity. In the garret are four corresponding wooden tubes. Into these all the impure air ascending, enters by similar apertures from beneath and through the ceiling. These tubes conduct the impure air thus drawn out, to the chimney. Here and near the chimney, is also a fan-wheel or blower, of four times the area of each of the wooden tubes. Air being a substance so extremely light and ethereal that a vast body may be suddenly set in motion by a small power. In hot, sultry, calm days, by motion of the fan, impure air is drawn out, while a steady current of air enters the apartment from the cellar beneath. This air may be cooled when required, by ice placed in the cavity or air chamber. Thus it is that during hot and sultry days, and days of excessive heat, in some parts of India, the apartments of the opulent are refreshed by cool breezes artificially produced, a man standing at the door with a vast fan.

It has been very lately stated by Dr Ure, that the five guinea fan of the Messrs Lillie and Fairbairns, operates to admiration. In some of those vast manufactories of Manchester, where its use has been introduced, the whole impure and unwholesome air is completely and suddenly expelled and driven out, its place being supplied by pure air.

The profits of the silk culture are identified in a great measure with the production of large and firm cocoons; such cocoons being usually composed of a strong fibre, not liable to break or cause trouble in reeling, or to waste: eight or nine pounds of such cocoons being sufficient to produce a pound of reeled silk; such being invariably the production of the full fed silkworms brought suddenly to maturity in the shortest possible space of time. A strict attention to cleanliness, with careful ventilation; an elevated temperature, with constant and regular feeding by night as well as day, being all that is required: the evolutions of the silkworm being wonderfully accelerated by heat and retarded by cold. In Madras, the silkworm passes through all its mutations in 13 days. The profit, in fine, depends on the production of the greatest possible amount of silk from the least possible amount of food, with the least possible amount both of labor and of time.

At the annual exhibition of the American Institute, of New York, in 1838, a premium was awarded to Mr Danforth, of Hartford, Ct., for the fine specimens of reeled silk which were then and there exhibited by him, the produce of one eighth of an acre of land: the trees and roots being small and of the growth of the preceding year, being planted in close order in May, and completely covered beneath the soil, produced of leaves at a single gathering, at the rate of 9312 pounds per acre in the first year, the cultivation being about the same as for corn: the silk raised and reeled by himself and family, none of whom had ever raised a silkworm or reeled before. He found that the "large or long crop silkworm" required but 90 pounds of leaves to produce a pound of reeled silk.

In December, in 1839, at the exhibition of the American Silk Society at the city of Washington, Mr Aaron Clapp, of Hartford, received the premium of the Society, for fifty pounds of fine reeled silk, which was raised by him from young trees of but a year's growth, which had been buried beneath the soil in May of that same year, on an acre and a quarter of land from a single gathering of the first year. By weighing all the leaves, he found that 80 pounds only were required for a pound of reeled silk. He states that Mr S. B Goodwin, of Wethersfield, produced from a quarter of an acre of land, at the rate of 14,300 pounds of leaves from a single acre of ground in the first year.

Also, in December, 1839, at the exhibition of the American Silk Society at Washington, the Rev. Mr McLean, of Freehold, N. J., received the Society's premium of $300 for twelve pounds of reeled silk, which was exhibited by him, this being the produce of one quarter of an acre of land, and of small trees and cuttings which had been buried beneath the soil in May of that same year. The produce being at the rate of 48 pounds of prime silk from an acre of land; the whole produce of the leaves being 2576 pounds, or at the rate of 10,306 pounds per acre. Although in this experiment very great credit is justly due to the Rev. Mr Mc'Lean for his highly meritorious exertions, yet as 214 or 215 pounds of leaves were used for the production of a pound of pure silk, it is evident that more than half the amount of food must have been wasted, as has been abundantly proved by the experiments of others. In that experiment the silkworms evidently suffered from cold during those cold storms, as fire was seldom used; also from hunger, being fed but seldom, and only by day, and never during the night. Hence they lingered generally from 28 to 36 or 40 days, and the cocoons were consequently small, or 300 to the pound, the thread of diminished size, liable to disproportionate waste in reeling, and requiring ten pounds and ten ounces for a pound of reeled silk. Mr McLean by accurate account found that his reeled silk cost him just $2 25 a pound, the same being worth from $4 50 to $6 in Philadelphia; yet it is evident that by a properly regulated temperature and more constant attendance during 24 days, with the same amount of food, and from the same labor of cultivation and of gathering of the leaves, more than double the amount of silk would have been produced, or more than 100 pounds, with but little increase in the amount of labor, except only in the reeling. Other and experienced gentlemen have calculated the cost of raising silk at less than $2 per pound, even by the usual modes of management, and on domestic establishments.

In a congenial soil and climate, the trees of the morus multicaulis will attain to the height of from 6 to 8 feet from the cuttings of a single eye, during the first summer, as I witnessed during my visits to Portsmouth, in lower Virginia, in the latitude of 37° 12′, in 1839. At that place, a tree 6 feet in height has been found to yield three quarters of a pound of leaves at a single gathering in the first summer, and the trees will bear stripping twice in that same year, a few leaves only being left on the tips; more than 10,000 such trees finding room on an acre. In the second year, the growth being strong and from well furnished roots, they will bear stripping thrice or more.

Of the mulberry tree there are many valuable varieties. The mulberry is a deciduous tree in the temperate regions, but an evergreen tree within the tropics. In the high table lands of the Deccan, in India, six crops of silk are produced in the year. The trees will bear stripping six times, a few leaves only being invariably left on the tips: they burst forth again with extraordinary luxuriance. In other parts of India, twelve crops in a season are produced. In China also, several crops are produced in a year. The mulberries in all those countries being kept low like plantations of raspberries. This mode and no other is recommended, *to raise the mulberry in hedges.* In America, as far north as New England, two successive crops in a year have been obtained; and in the States of the South three and four crops may be produced in a year, from the same trees of the morus multicaulis or Chinese mulberry, which is of a rapid and prolonged growth. Young worms require young and immature leaves, tender and succulent; but in the more advanced and last stages of the silkworm, leaves full grown and more mature are the most suitable food.

In most agricultural pursuits and in manufactures, there is great saving both of labor, of time, and of all things else, when operations are managed on an extensive scale. Silk is by no means an exception to this general rule, as the system of M. Beauvais most fully proves: so also the Count Dandolo had taught before. That silk may be cultivated on every farm and domestic establishment, however small, is a truth now established beyond dispute. Those distinguished masters have also proved, that when skill and science have come in aid, the silk business may also be carried on to profit far greater in large establishments and on an extended scale. The result of the operations of the experimental silk farm, which was established by the government of France, as conducted by M. Beauvais, has lately been published by the French Minister of Commerce and of Agriculture. These results shew that the number of days of labor does not increase in proportion to the number of silkworms; for while the labor necessary to rear a single ounce of silkworms' eggs, or about 40,000, requires 31 days, ten ounces require but 210 days, and 100 ounces but 1100 days of labor. In the first instance, a day's labor produces but six pounds of cocoons; in the second instance, a day's labor will produce nine pounds; but in the last, or where 100 ounces of eggs are raised, a day's labor will produce seventeen pounds of cocoons.

Hail, progress of improvement, all hail! How swift its speed! in all things how great, how wonderful, in this our day! In vain do those false men oppose,—those foes to the interests of the country and to its fame, who would paralize its energies and its resources,—aliens, who would destroy its industry and exhaust it of all its treasures for the benefit of foreign nations,—those men, in fine, who have ever been the unceasing opponents of every improvement in every age,—in vain do they strive to obstruct its progress and to cause a retrograde, or to stop its march, which is onward and irresistible.

WILLIAM KENRICK.

Nonantum Hill, Newton, March 12, 1840.

BONE AS A MANURE.

The use of bone as a manure for crops, particularly the drilled or root crops, is rapidly increasing in this country, wherever the ground article can be procured, and it appears to justify all the reasonable expectations that have been formed respecting its application. Mills for grinding bones have been erected near Boston, New York and Troy, where the dust is sold by the barrel or bushel, and where tried has generally been highly approved. In all our cities or large villages, almost any desirable quantity of bones could be procured, were it of consequence to preserve or obtain them; and as the expense of a mill for grinding cannot, we think be great, would it not be well to have one at least in every place where a saving or sale of this material is practicable. Bones simply crushed are useful, and their effects are more durable than when made fine; but when applied in the form of dust, the effect is quicker and more sensible.

That bones should be an active manure when applied to plants, is evident from their composition. According to the analysis of that excellent chemist, Mr Hatchett, the component parts of bones are chiefly four—the earthly salts, fat, gelatine and cartilage. The earthly salts are three in number: 1st, phosphate of lime; 2d, carbonate of lime; 3d, sulphate of lime.

Experience in the use of bones has proved that the gelatine is the most valuable part of the bones, and this analysis proves, that of all bones those of man and the calf are most serviceable as manures. In England, the dust made from bones brought from the battle fields of Europe, has been most esteemed, and until that source of supply was exhausted, ship loads of them were imported annually for grinding. Boiling bones for the purpose of making portable soups by extracting the fat and gelatine, injures them for the purpose of agriculture, in proportion to the quantity extracted. Bones from soap makers when crushed, are little more than the salts of lime; and these, though very valuable on some soils, can be obtained cheaper other ways.—The average quantity of gelatine is not far from 1.16 of the bone.—*Genesee Far.*

[From 'Transactions of the Essex Agricultural Society.']

ON EXPERIMENTS ON MANURES.

To the Trustees of the Essex Agricultural Society:

Gentlemen,—The only claim to which the attention of the Committee on Experiments on Manures has been called, is that of Dr Andrew Nichols, of Danvers. His farm in Middleton was visited in July and September. Early in the spring he had caused unleached wood-ashes to be spread on low and cold soils, and the crops of grass gave evidence that the application was very favorable. It had produced a heavy burden of grass on land which otherwise would have had but a light and sour crop.

His corn was manured with a compost made of a small portion of animal manure, seventy bushels of ashes and meadow or peat mud. The soil is a sandy loam. The growth in July was luxuriant, and in September there was a handsome display of full-grown, well-filled ears, in the judgment of the Committee about fifty bushels to the acre. This in some circumstances would not be considered a large yield, but the soil is naturally light and for many years had not been well manured. The committee were satisfied by the appearance of the crop, that this year the proper manure and good treatment had been applied, and that in ordinary seasons a compost of ashes, meadow mud and barn manure, will, on sandy and loamy soils produce a fair crop of corn. In the locality of Dr Nichols's farm, it would be difficult and expensive to procure animal manure in sufficient quantities to plant any considerable extent of land, and we know of no cheaper or better substitute.

The attention of the Committee was also directed to a piece of barley, on which a solution of potash and peat mud had been applied, and the quantity of straw and grain appeared to have been doubled by the operation. But the advantages of this application were still more apparent on a small portion of land on which onions had been sown.—Although it was not in proper tilth for such a crop, it produced at the rate of six hundred and forty bushels to the acre. On a small part of the land none of the solution had been used; here, the crop was very light, giving evidence that the superiority of the crop was owing to the novel application.

The subject is important to farmers. Manure is the capital on which they do business. And the man who teaches them how to obtain it at a reasonable rate and in sufficient quantities, does the public better service, than if he lectured the live long day on copper and silver mines, and amused the sleepy hours with golden dreams.

The Committee think Dr Nichols's experiment valuable, and his statement satisfactory; they recommend that it be published, and that the Society's premium of twenty dollars be awarded to him.

For the Committee,

DANIEL P. KING.

Danvers, Dec. 28, 1839.

DR A. NICHOLS'S STATEMENT.

To the Committee of the Essex Agricultural Society, on Manures.

Persuaded of the importance of the discoveries made by Dr Samuel L. Dana, of Lowell, and given to the world through the medium of the reports of Professor Hitchcock and Rev. H. Colman, to the Legislature of Massachusetts, concerning the food of vegetables, geine, and the abundance of it in peat mud, in an insoluble state to be sure, and in that state not readily absorbed and digested by the roots of cultivated vegetables, but rendered soluble and very easily digestible by such plants by potash, wood-ashes, or other alkalies, among which is ammonia, one of the products of fermenting animal manures, I resolved last year to subject his theories to the test of experiment the present season. Accordingly I directed a quantity of black peat mud, procured by ditching for the purpose of draining and reclaiming an alder swamp, a part of which I had some years since brought into a state highly productive of the cultivated grasses, to be thrown into heaps. During the winter I also had collected in Salem, 282 bushels of unleached wood-ashes, at the cost of 12 1-2 cents per bushel. These were sent up to my farm, a part to be spread on my black soil grass lands, and a part to be mixed with mud for my tillage land. Two hundred bushels of these were spread on about six acres of such grass land while it was covered with ice, and frozen hard enough to be carted over without cutting it into ruts. These lands produced from one to two tons of good merchantable hay to the acre, nearly double the crop produced by the same lands last year. And one fact induces me to think, that being spread on the ice, as above mentioned, a portion of these ashes was washed away by the spring freshet. The fact from which I infer this, is, that a *run* below, over which the water coming from the meadow on which the largest part of these ashes were spread flows, produced more than double the quantity of hay, and that of a very superior quality to what had been ever known to grow on the same land before.

Seventy bushels of these ashes, together with a quantity not exceeding thirty bushels of mixed coal and wood ashes made by my kitchen and parlor fires were mixed with my barn manure, derived from one horse kept in stable the whole year, one other horse kept in stable during the winter months, one cow kept through the winter, and one pair of oxen employed almost daily on the road and in the woods, but fed in the barn one hundred days. This manure was never measured, but knowing how it was made, by the droppings and litter or bedding of these cattle, farmers can estimate the quantity with a good degree of correctness. These ashes and this manure were mixed with a sufficient quantity of the mud above mentioned by forking it over three times, to manure three acres of corn and potatoes, in hills four feet by about three feet apart, giving a good shovel full to the hill. More than two-thirds of this was grass land, which produced last year about half a ton of hay to the acre, broken up by the plough in April. The remainder was cropped last year without being well manured, with corn and potatoes. Gentlemen, you have seen the crop growing and matured, and I leave it to you to say whether or not the crop on this land would have been better had it been dressed with an equal quantity of pure, well rotted barn manure. For my own part I believe it would not, but that this experiment proves that peat mud thus managed, is equal if not superior, to the same quantity of any other substance in common use as a manure among us; which, if it be a fact, is a fact of immense value to the farmers of New England. By the knowledge and use of it, our comparatively barren soils may be made to equal or excel in productiveness the virgin prairies of the West. There were many hills in which the corn first planted was destroyed by worms. A part of these were supplied with the small Canada corn, a part with beans. The whole was several times cut down by frost. The produce was three hundred bushels of ears of sound corn, two tons of pumpkins and squashes, and some potatoes and beans. Dr Dana, in his letter to Mr Colman, dated Lowell, March 6, 1839, suggests the trial of a solution of geine as a manure. His directions for preparing it are as follows: "Boil one hundred pounds of dry pulverized peat with two and a half pounds of white ash, (an article imported from England,) containing 36 to 55 per cent. of pure soda, or its equivalent in pearl-ash or potash, in a potash kettle, with 130 gallons of water; boil for a few hours, let it settle, and dip off the clear liquor for use. Add the same quantity of alkali and water, boil and dip off as before. The dark colored brown solution contains about half an ounce per gallon of vegetable matter. It is to be applied by watering grain crops, grass lands, or any other way the farmer's quick wit will point out."

In the month of June I prepared a solution of geine, obtained not by boiling, but by steeping the mud as taken from the meadow, in a weak lye in tubs. I did not weigh the materials, being careful only to use more mud than the potash would render soluble. The portion was something like this: peat 100 lbs., potash 1 lbs., water 50 gallons; stirred occasionally for about a week, when the dark brown solution, described by Dr Dana, was dipped off and applied to some rows of corn, a portion of a piece of starved barley, and a bed of onions sown on land not well prepared for that crop. The corn was a portion of a piece manured as above mentioned. On this the benefit was not so obvious. The crop of barley on the portion watered was more than double the quantity both in straw and grain to that on other portions of the field, the soil and treatment of which was otherwise precisely similar.

The bed of onions which had been prepared by dressing it with a mixture of mud and ashes previous to the sowing of the seed, but which had not by harrowing been so completely pulverized, mixed and kneaded with the soil as the cultivators of this crop deem essential to success, consisted of three and a half square rods. The onions came up well, were well weeded, and about two bushels of fresh horse manure spread between the rows. In June, four rows were first watered with the solution of geine above described. In ten days the onions in these rows were nearly double the size of the others. All but six rows of the remainder were then watered. The growth of these soon outstripped the unwatered remainder.

Mr Henry Gould, who manages my farm on shares, and who conducted all the foregoing experiments, without thinking of the importance of leaving at least one row unwatered that we might better ascertain the true effect of this management, seeing the benefit to the parts thus watered, in about a week after treated the remainder in the same manner. The ends of some of the rows, however, which did not receive the watering, produced only very small onions, such as are usually thrown away as worthless by cultivators of this crop. This fact leads me to believe that if the onions had not been watered with the solution of geine, not a single bushel of a good size would have been produced on the whole piece. At any rate it was peat or geine rendered soluble by alkali that produced this large crop.

The crop proved greater than our most sanguine

expectations. The onions were measured in the presence of the chairman of your committee, and making ample allowance for the tops which had not been stripped off, were adjudged equal to four bushels to the square rod, or at the rate of 640 bushels to the acre. In these experiments 7 lbs. of potash which cost 7 cts. a pound bought at the retail price, were used. Potash, although dearer than wood-ashes at 12 1-2 cents per bushel, is, I think, cheaper than the white ash mentioned by Dr Dana, and sufficiently cheap to make with meadow mud, a far cheaper manure than such as is in general used among our farmers. The experiment satisfies me that nothing better than potash and peat, can be used for most, if not all our cultivated vegetables, and the economy of watering with a solution of geine, such as are cultivated in rows, I think cannot be doubted. The reason why the corn was not very obviously benefitted, I think, must have been that the portion of the roots to which it was applied, was already fully supplied with nutriment out of the same kind from the peat ashes and manure put in the hill at planting, For watering rows of onions or other vegetables, I should recommend that a cask be mounted on light wheels, so set that like the *drill* they may run each side of the row and drop the liquid manure through a small tap hole or tube from the cask, directly upon the young plants. For preparing the liquor, I should recommend a cistern about three feet deep and as large as the object may require, formed of plank and laid on a bed of clay and surrounded by the same, in the manner that tan vats are constructed; this should occupy a warm place, exposed to the sun, near water, and as near as these requisites permit to the tillage lands of the farm. In such a cistern, in warm weather, a solution of geine may be made in large quantities with little labor and without the expense of fuel, as the heat of the sun, is, I think, amply sufficient for the purpose.* If from further experiments it should be found economical to water grass lands and grain crops, a large cask or casks placed on wheels and drawn by oxen or horse power, the liquor from the casks being at pleasure let into a long narrow box preforated with numerous small holes which would spread the same over a strip of ground, some 6, 8, or 10 feet in breadth, as it is drawn over the field in the same manner as the streets in cities are watered in summer. ANDREW NICHOLS.

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I certify that I measured the piece of land mentioned in the foregoing statement, as planted with corn, on the 21st of September, 1839, and found the same to contain two acres, three quarters, thirtyone rods. JOHN W. PROCTOR, *Surveyor*.

CABBAGE, AS FOOD FOR HOGS.

A gentleman remarked, in our hearing, a few days since, that cabbage was a valuable food for store hogs. The idea was new to us, and we inquired the manner of feeding. In reply, he gave us the following as the result of his experience, the last summer. Having a fine patch of plants, and observing the bottom leaves beginning to decay, he directed his farmer to procure a water-tight cask, and gather a bushel of the lower leaves from the cabbage plants, and deposit them in the barrel with a handful of salt, and one quart of corn meal. On this was poured the contents of the kitchen swill-pail, and the whole was suffered to stand undisturbed for twentyfour hours, when the process was repeated, with the exception of the salt—and so, every day, until the cask was filled with a mass of wilted leaves, about six quarts of corn meal, potatoe pealings, crumbs of bread, &c., from the kitchen; all in a state of partial fermentation. He now commenced feeding it to the hogs, and they eat with greediness, leaving other food for this. They were evidently as fond of this kind of mush, as ever "Mynheer" was of *sour-krout*.

While the hogs were consuming the contents of the first barrel, a second was in the course of being filled, and so alternately, till the stock of leaves was entirely exhausted, which was about four weeks.

This gentleman gave his opinion, that he could not have prepared any other kind of food for hogs, known to him, at double the expense, that would have produced results so decidedly beneficial. An increase of appetite, improvement in their general appearance, and better heart, was the result of this method. The cabbages, he thinks, were greatly improved by plucking the redundant foliage; and he intends to plant a large patch of cabbages, the coming season, more fully to test the advantages of this kind of feed for hogs. We invite him, and others who may "experiment" in the business, to give us the results, for publication.—*Farmer's Cab.*

APPLE ORCHARDS.

The orchards in the interior of New England have been sadly treated for the last half a dozen years. In the commendable zeal to make our population more temperate, war has been waged against the apple trees, and some of the finest orchards have been razed to the ground: in other cases the trees have been neglected and left a prey to catterpillars, canker worms and the browsing of cattle, or else from neglect of the friendly pruning knife, to divest them of suckers and diseased limbs, have gradually deteriorated both in quantity and quality of the fruit. Now if the consumption of cider had grown into entire disuse, all the apple trees that ever stood on the ground at any one time, would not be too many for the profitable use of the inhabitants of New England.

If apples, unfit to be eaten or used in various ways for the use of man, were produced in quantities, it is ascertained that they may be advantageously converted into food for brute animals—for swine, cattle and horses. But there is not a tree producing bad apples that may not by grafting, in the course of five or six years, be made to produce plentifully the best of fruit. The fruit does now, and will for years to come, bear a high price. In the vicinity of Boston, the venders go about among the farmers and pay readily, taking the apples from the fields, three dollars a barrel, containing little more than two bushels, for Baldwins. As far in the country as this place, good winter apples sell for two dollars the barrel. In the yard, we believe, of Mr Gould at Henniker, in the month of October; we saw two trees at a distance, on which were apples appearing to be the blue pearmain, which would measure eight or ten barrels each. Now what growth can be more profitable than the apple tree which in a single season shall yield twenty dollars?

The true method of making an apple or any other fruit orchard productive, is to cultivate and manure the ground as for any other crop. An orchard should be kept in almost constant tilth. Taken when young, the tree may be so constructed with the use of the pruning knife as to interfere very little with the use of the plough, and so that almost any vegetable crop may grow under and among the trees. On ground well cultivated, fruit trees will invariably grow larger and fairer.

If the prospect of raising an orchard to those in advanced life look discouraging, we say unto all such that the man who has strength to labor does not live who is too old to plant and rear a fruit orchard. With careful cultivation on rich ground in favorable positions, an apple orchard will grow up to bearing in less than half the time that it would if left to itself and exposed to the clipping of cattle and the inroads of destroying insects. We may plant a nursery, and in two years the young tree will be fit for budding by inoculation: in two years more it will be ready to transplant, and in two more the tree will begin to bear. An aged relative living on the premises where the editor was born, which premises long since our recollection had not more than two or three apple trees of any kind fit for eating, lately shewed us over the flourishing orchard, planted by his own hands on a few acres about the old mansion, which orchard has for the last fifteen or twenty years produced from one to five hundred barrels of grafted Baldwin and russet apples, paying the interest on this crop alone of from three to five hundred dollars an acre. The old gentleman plucked from a favorite tree apples which it had borne several years, the grafts of which were by him there placed when his wife, now deceased, told him it was probably too late for them ever to witness their bearing: yet, he informed us, she did live long enough to eat of the apples in successive seasons, and he had lived after her for several more years to eat of the same tree; and now, at the age of seventyseven years, being able not only to mount the ladder and pick his apples from the trees, but to take up his barrel of apples and place it in the cart by main strength; he is still likely to witness the annual production of fruit from the same tree ten, fifteen and by possibility twenty years longer.—*Farmer's Monthly Visitor.*

SEEDS.—The certainty and continuance of the vegetative power of seeds depend greatly on being fully ripe, well secured, and preserved from too much confinement, heat, and dampness. Some, however, lose their vegetative properties much sooner than others.

Parsnep, rhubarb, and other very thin and scaly seeds are not to be depended on the second year.

Beans, capsicum, carrot, cress, leek, nastratium, okra, onion, salsify, scorzonera, and small herb seeds should not generally be trusted the third year.

Artichoke, asparagus, corn egg-plant, endive, fetticus, lettuce, mustard, parsley, peas, skirret and spinage, often fail after the third year.

Broccoli, cauliflower, cabbage, celery, kale, radish, and turnip, will vegetate well four or five years.

Beet, cucumber, gourd, melon, pumpkin, and squash—also burnet, chervil, and sorrel, have been known to vegetate freely five to ten and more years.

Some seeds should not be sown the same season they are grown. There is too much of a tendency in biennials to go to seed; and in annuals to vines and unfruitfulness.

* Perhaps in an excavation in a peat meadow, which would fill with water spontaneously, a solution of geine might be still more cheaply obtained, by simply adding potash, ashes, &c. to the stagnant water.

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

Boston, Wednesday, May 6, 1840.

Florula Bostoniensis—A Collection of Plants of Boston and its Vicinity, &c. By Jacob Bigelow, M. D. Published by Charles C. Little and James Brown.

This is the third edition of a work published some years since, and adapted to the present state of the science among us. We shall allow the author to speak for himself in the preface; for we could not say what he says so well as he has done it:

"The taste for botanical studies which for many years has prevailed in this quarter of the Union, may with some truth be said to have had its origin about the time of the publication of the first edition of this work. The principal use of a local Flora is, that it enables botanical inquirers to direct their attention chiefly to the objects with which they are most likely to meet in their researches about home, and saves them from the more extended labor of searching for the names of these objects through the pages of general works.

"Since the publication of the former editions of the Florula Bostoniensis, much progress has been made in the knowledge of the structure and relations of plants. A revolution appears to be taking place in regard more particularly to two things. Firstly, the terminology of the science has been greatly extended by the introduction of more precise and definite terms to express the numerous forms of vegetable organic structure. This is rendered necessary by the vast additions which are continually making to the catalogue of known plants, to distinguish and describe which, language itself is often at fault. Secondly, a preference among botanical writers greatly preponderates at the present day, in favor of the arrangement of plants by natural orders and systems, rather than by the artificial method of Linnæus. To those who cultivate botany extensively as a science, there can be no question that the natural method is far more exact and satisfactory. On the other hand, to beginners in study, the artificial mode is more easy of comprehension, and is more readily made available for the first steps in the identification of plants."

The book is well printed, and will be duly valued by those interested in the science Our regret is that it should not be accompanied by plates. There should in such a work have been given at least a few colored plates of some of the principal plants described. This would have increased the expense, but the class of readers who use the book would gladly pay the additional cost for the value which they would have added to the work.

We cannot too strongly express the satisfaction which we feel in observing the strong impulse with which the public mind is now setting towards the study of the natural sciences—botany, geology, mineralogy, chemistry, zoology and various popular branches of natural philosophy. They make the whole world, the inanimate as well as the animate, alive to man. The intelligent inquirer and student of nature is never less alone than when alone. All nature is full of religious instruction. Here is God's earliest revelation; and every thing discloses to the inquiring mind the wonders of his creation and providence. As to mere controversial theology, most of it—we say it with all due respect to the opinions of those much better informed—is a perfect waste of the mind As to politics, who is the better in them for knowledge, or wisdom or truth? Here party and passion, not principle, regulate every thing. As to metaphysics, who cares to wander in their intricate mazes blindfold, in endless labyrinths lost; or go upon a Quixotic expedition and run a tilt with windmills? But every fact in the natural world is interesting, important, and instructive; and the deeper we dig into this mine, the more precious stones we throw out. Some of your wiseacres, the people who belong to the family of the Knowalls, speak with disdain of the study of nature in its minute departments, and laugh at gathering daisies and running after butterflies. If such conceit deserved notice, we would throw it back upon them. But we say that the man who can pluck the humblest flower that springs out of the earth, or gather the smallest shell that is thrown upon the ocean's shore, or inspect the minutest insect that the microscope can bring within its ken, and not see in them with profound amazement, delight, and adoration, the infinite skill, wisdom and benevolence of the Creator, is sadly deficient in the highest qualities of the mind and heart.

Education cannot, in respect to the young, too much busy itself with these branches of knowledge. The child taught to know, to study, and to recognise every object in nature which comes in his way, will find in the world a continual "feast of reason and flow of soul"—will be inspired with an indomitable thirst for knowledge; will never be at a loss for recreation and for consolation; and will, in a high and spiritual sense, "have meat to eat which others know not of." H. C.

A Manual, or an Easy Method of Managing Bees in the most profitable manner to their owner, with infallible rules to prevent their destruction by the moth. By John M. Weeks, West Farms, Salisbury, Vt. New edition, revised and enlarged.

This book has been recently republished by Messrs Weeks, Jordan & Co., of this city. It is a capital little volume, and condenses much useful matter in a very small compass. We have had several hives of bees at different times, but cannot boast much of success in their management. This did not arise from neglect, but from ignorance of the best treatment of them, and from ill-constructed hives. This little book furnishes the most full and satisfactory information on the subjects on which it treats; and does it in a simple, concise, and perfectly intelligible manner. There is added at the end a series of questions, with references to different parts of the book, which are well adapted to test the reader's knowledge and understanding of what he has been over. Mr Weeks professes to give a perfect remedy against the bee-moth, which has proved so destructive to the bees, and so discouraging to the bee raisers. It certainly promises to be effectual and supplies a great desideratum. Mr Weeks' hive, of which we spoke not long since, is an admirable construction, built as then remarked, not upon the assassin and piratical principles, but upon the principle of give and take; and live and let live.

Mr Weeks discourages the practice of giving the bees a large room in the house or out buildings. Several establishments of this kind have come under our observation; but, in the majority of cases they have proved failures We understand it to be Mr W.'s opinion that bees requires occasionally to swarm or be colonized, when the young are sent out to provide for themselves, whereas if they all remain at home constantly with the old folks, and are continually marrying and intermarrying within, there is a tendency, not unobserved, we believe in other races of animals, to deteriorate, or as the phrase is to run out. We are not responsible for Mr Weeks' philosophy in the case; and we know no one better entitled to speak with authority than a man, who, with so much intelligent observation and success, has devoted so much time to the habits of this little, but most industrious and useful animal. The bee and the silk-worm, they put us quite to shame! H. C.

PROGRESS OF TEMPERANCE.

Twentyfive years ago, and within the compass of a pretty extensive acquaintance, we knew of not more than two farmers, who were not in the habit of giving ardent spirit freely to their hired men; and considered its use indispensable. The measure then taken was to inquire what extra wages should be paid to the laborer to induce him to abstain entirely from the use of ardent spirit; and many were unwilling to come into such an agreement upon any terms. The next step in the progress was for the hired men, when they applied for employment to commend themselves by stating that they did not use any ardent spirit. Now no man makes any stipulation about it. The farmer gives none; and he gives no increase of wages. The hired man expects none; and in many cases so far from making any stipulation, he would be surprised if any thing should be said by his employer on the subject. He feels that his own character is in danger, if he should use it or express any complaint at being denied it. This shows an immense gain to the cause of Temperance; and we can say with as much truth as pleasure, that of the hundreds of farmers whom we have visited in our explorations in different parts of the Commonwealth, not one farmer in fifty permits a drop of ardent spirits to come on to his premises. What greater blessing can come from heaven than is such an improvement in public sentiment and public morals, indicated by such facts. H. C.

ERRATA IN THE TRANSACTIONS OF THE ESSEX AGRICULTURAL SOCIETY.

We are requested to make some corrections in this valuable pamphlet which are deemed material. On page 38th, line tenth from top, the *no* is to be omitted. In the 12th line of the same page for 166 lbs., you must read one pound.

These errors occur in a most valuable paper by Dr Nichols, of Danvers on the subject of manures, which we give to our readers in this number.

It may seem extraordinary to those not familiar with these matters, that such errors should occur and escape an earlier detection. But such persons know very little of the various passages which the author has to make before he presents his offspring to the public. Sometimes his own manuscript is not plain. Then the compositor may err; or the proof reader may err; or the proof corrector may fail in his duty; or the letters may drop out of the form after all is done. As to proof readers and compositors, the poor author must make up his mind in the beginning, that they may be very acute and clever fellows out of the office, yet as proof readers and compositors they do not know any thing, and it is not to be expected that they should know any thing beyond seeing that all the ems, and ens, and points, and leads are in the right place. We confess it is mortifying enough to be made to say what you did not intend to say; and especially to be made to use a negative when we mean an affirmative. We sympathise with the Doctor in this case. Plague take the printers, we say! no longer ago than last week, instead of saying three full gown patterns, they made us say three full grown patterns; after all, it might have been much worse—or so might have been put in a much more inconvenient place, as for example had a certain lady of our acquaintance a few years since have put in a negative instead of an affirmative, certainly our friend the Doctor would have had much more cause to complain than if so had been thrust in without reason upon every page of his communication. We cannot say who is responsible for these errors, but we know who ought to *Foote* the bill. H. C.

Soda.—A few ounces of soda will soften a hogshead of the hardest water. It is greatly superior to either pot or pearlash giving a delicate whiteness to the linen, without the slightest injury, and it never, unless excess is used, in the least affects the hands.

Massachusetts Horticultural Society.

PARTICULAR NOTICE.

THE COMMITTEE ON FLOWERS are respectfully requested to meet, at the Rooms of the Massachusetts Horticultural Society, 23 Tremont Row, on Saturday next, 9th May; a punctual attendance is desirable as business of importance will be brought before the Committee. Per order,

May 2d, 1840. S. WALKER, *Chairman.*

The Report of the Committee of the Massachusetts Horticultural Society, offering premiums on Fruit for 1840, was received too late for insertion this week. It shall appear in our next.

Third letter from Hon. William Foster has been received and will appear next week.

BRIGHTON MARKET.—MONDAY, May 4, 1840.

Reported for the New England Farmer.

At Market 125 Beef Cattle, 10 Cows and Calves, 150 Sheep and 600 Swine.

40 Beef Cattle and all the Sheep were reported last week.

PRICES.—*Beef Cattle.*—Nearly all the Beef Cattle were purchased Friday and Saturday; about thirty only were for sale this morning, consequently, sales were effected at an unusual advance. A few brought as high as $7 50. We shall omit the prices generally until the market shall have become more settled.

Cows and Calves.—A few sales noticed. $25, $30, $33, and $35.

Sheep.—Prices not made public.

Swine.—Lots to peddle 4 3-4 for sows, and 5 3-4 for barrows. At retail from 5 to 7.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, week ending May 3.

May, 1840.		7 A.M.	12, M.	5, P.M.	Wind.
Monday,	27	38	48	45	N. W.
Tuesday,	28	33	60	45	E.
Wednesday,	29	44	56	46	S. E.
Thursday,	30	46	66	60	N. W.
Friday,	1	51	60	58	N.
Saturday,	2	39	55	58	W.
Sunday,	3	54	80	55	E.

FIR TREES.

Now is the best time for transplanting Fir Trees. Orders for any variety or size will be promptly attended to.
May 6. JOSEPH BRECK & CO.

HORTICULTURAL TOOL CHESTS.

Containing a complete set of Garden tools of superior finish and style, recently received from Liverpool and for sale at the New England Agricultural Warehouse and Seed Store.
May 6. JOSEPH BRECK & CO.

THE BOY'S COUNTRY BOOK

Of amusements, pleasures and pursuits, illustrated with 22 original designs. By WILLIAM HOWITT. One of the best books for lads ever published. For sale by
April 29. JOSEPH BRECK & CO.

GOLD FISHES AND CANARY BIRDS.

For sale by JOSEPH BRECK & CO. 52 North Market Street.
April 29.

BONE MANURE.

A good supply of ground bones constantly on hand, and for sale at William Chace's mill, one and a half miles northwest of Providence bridge.
A sample may be seen at Remington and Whitman's store, No. 32 Market St. Providence, R. I.
Also, Bone Mills on a new and improved construction, for sale at the above place.
April 8. 8t

FARMING AND GARDEN TOOLS.

For sale at the New England Agricultural Warehouse and Seed Store, No. 51 & 52 North Market Street.
500 dozen Cast Steel and other Scythes.
300 " Patent Scythe Snathes.
200 " Common do. do.
100 " Cast Steel Hoes.
200 " Crooked Neck Hoes.
200 " Common do
100 " Prong do.
100 " Garden do. superior.
500 " Hay Rakes.
1500 " Scythe Rifles.
500 " do. Stones.
100 " Ames' and other Shovels.
50 " Spades.
100 " Manure Forks.
200 " Hay do.
300 pair Trace Chains.
100 " Ox do.
200 Halter do.
300 Chains for tying up Cattle.
Together with a most complete assortment of Farming and Garden Tools of every description.
March 11. JOSEPH BRECK & CO.

FARM FOR SALE.

The highly cultivated Farm of the late Captain A. Delano, situated in North Charlestown, N. H. four miles from the flourishing village of Clarmont, containing 160 acres of first rate arable and wood land, with a well finished two story dwelling house with all necessary out buildings, unfailing water at house and barns, two good barns, with shed 80 by 20 feet, and all necessary buildings for a well stocked farm; together with a good assortment of young fruit trees, among which is a fine variety of pear and apple in a flourishing condition, with two good gardens. Terms liberal. Apply to H F. DELANO, on the premises, or ISAAC HUBBARD, Esq. Claremont.
North Charlestown, April 8, 1840. tf*

BONE MANURE.

The subscriber informs his friends and the public, that after ten years experience, he is fully convinced that ground bones form the most powerful stimulant that can be applied to the earth as a manure.
Orders for Bone Manure or Oyster Shell Lime, left at the Bone Mill, near Tremont road, in Roxbury, at the New England Agricultural Warehouse and Seed Store, No. 52 North Market Street, or through the Post Office will meet with prompt attention.
March 4, 1840. NAHUM WARD.

GARDENERS KNIVES.

JOSEPH BRECK & CO. have this season imported and now offer for sale a few very superior Garden Knives, for pruning, &c. manufactured expressly for Gardeners, and warranted superior to any article of the kind before imported.
Also—a large assortment of Budding Knives, Grape Scissors, &c. &c.
April 22.

PURE BLOODED STOCK.

For sale, three young Bulls, 7 to 9 months old, from improved shorn horn Durham, Alderney, and North Devon Stock. Inquire at this office.
April 29. 6t

Webster's and Silliman's Agricultural Speeches.

Just published and for sale by JOSEPH BRECK & CO.
April 22

Clover Seed.

50 tierces of Eastern Clover Seed for sale by
April 22 JOSEPH BRECK & CO.

Week's Treatise on Bees

For sale by JOSEPH BRECK & CO.
April 15.

Isabella Grape Vines.

For sale by JOSEPH BRECK & CO. Isabella Grape Vines, of a large size, many of them having borne fruit the last season.
March 25.

WHOLESALE PRICES CURRENT.

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
ALUM, American,	pound	5	5½
ASHES, Pearl, per 100 lbs.		5 00	5 12
Pot, " " "		4 75	4 87
BEANS, white, Foreign,	bushel	1 75	2 25
" " Domestic,	"	2 00	2 00
BEEF, mess,	barrel		15 50
No. 1.	"	13 00	14 00
prime,	"	11 00	11 50
BEESWAX, white,	pound		
yellow,	"	28	30
BRISTLES, American,	"	35	70
BUTTER, shipping,	"	10	11
dairy,	"	15	18
CANDLES, mould,	"	13	14
dipped,	"		
sperm,	"		38
CHEESE, new milk,	pound	10	
CIDER,	dozen	1 25	1 50
refined.	barrel	2 00	4 00
BONE MANURE,	bushel		32
in casks,	"		37
FEATHERS, northern, geese,	pound		
southern, geese,	"	37	45
FLAX. (American)	"	9	12
FISH, Cod, Grand Bank,	quintal	2 18	2 27
Bay, Chaleur,	"	1 75	2 00
Haddock,	"	1 06	1 10
Mackerel, No. 1	barrel	11 50	
No. 2,	"	9 50	
No. 3,	"	5 00	5 50
Alewives, dry salted, No. 1.	"	5 00	5 25
Salmon, No. 1,	"	17 00	18 00
FLOUR, Genesee, cash,	"		
Baltimore, Howard street,	"	5 37	5 50
Richmond canal,	"		5 37
Alexandria wharf,	"		
Rye,	"	3 50	3 75
MEAL, Indian, in hhls.	"	3 62	
GRAIN: Corn, northern yellow,	bushel		
southern flat, yellow,	"	55	56
white,	"	52	53
Rye, northern,	"		65
Barley,	"	65	75
Oats, northern, (prime)	"	43	
southern,	"	35	37
GRINDSTONES, pr ton of 2000 lbs. rough		18 00	19 00
do. do. do. finished		28 00	30 00
HAMS, northern,	pound	10	11
southern and western,	"	7	8
HAY, best English, per ton,		16 00	18 00
Eastern screwed,		11 00	11 50
HOPS, 1st quality,	pound		40
2d quality,	"		35
LARD, Boston,	"	10	11
southern,	"	10	11
LEATHER, Philadelphia city tannage,	"	29	30
do. country do.	"	25	27
Baltimore city tannage,	"	26	28
do. dry hides,	"	22	24
New York red, light,	"	21	23
Boston, do. slaughter,	"	21	22
Boston dry hides,	"	20	22
LIME, best sort,	cask	80	85
MOLASSES, New Orleans,	gallon	25	26
Sugar House,	"	50	55
OIL, Sperm, Spring,	"		1 05
Winter,	"	1 12	1 15
Whale, refined,	"	50	55
Linseed, American,	"	68	70
Neat's Foot,	"	95	
PLASTER PARIS, per ton of 2200 lbs.			3 50
PORK, extra clear,	barrel	18 00	19 00
clear,	"		17 00
Mess,	"	14 00	15 00
Prime,	"	13 00	14 00
Whole Hogs,	pound	4½	5
SEEDS: Herd's Grass,	bushel		3 00
Red Top, southern,	"	70	80
northern,	"		1 50
Canary,	"	2 00	2 25
Hemp,	"	2 25	2 50
Flax,	"	1 37	1 62
Red Clover, northern,	pound	12	13
Southern Clover,	"		15
SOAP, American, Brown,	"	5	7
" Castile,	"	12	13
TALLOW, tried,	"	10	11
TEAZLES, 1st sort,	pr M.	2 50	3 00
WOOL, prime, or Saxony Fleeces,	pound	48	50
American, full blood, washed,	"	45	47
do. 3-4ths do.	"	40	42
do. 1-2 do.	"	37	38
do. 1-4 and common,	"	35	37
Northern pulled. Pulled superfine,	"	42	47
No. 1,	"	35	40
No. 2,	"	23	25
No. 3,	"	18	20

MISCELLANEOUS.

Statistics of the Jewish nation.—The statistics of the Jewish population are among the most singular circumstances of this most singular of all people.—Under all their calamities and dispersions, they seem to have remained at nearly the same amount as in the days of David and Solomon, never much more in prosperity—never much less after ages of suffering. Nothing like this has occurred in the history of any other race; Europe in general having doubled its population within the last hundred years; and England nearly tripled hers within the last half century—the population of America being still more rapid; and the world crowded in a constantly increasing ratio, yet the Jews seem to stand still in this vast and general movement. The population of Judea in its most palmy days, did not probably exceed, if it reached, four millions. The numbers who entered Palestine from the wilderness were evidently not much more than three millions—and their census, according to the German statistics, which are generally considered to be exact, is now nearly the same as that of the people under Moses—about three millions. They are thus distributed:—In Europe 1,960,000, of which about 658,000 are in Poland and Russia, and 453,000 are in Austria. In Asia, 738,000, of which 300,000 are in Asiatic Turkey. In Africa, 504,000, of which 304,000 are in Morocco. In America, North and South, 5,700. If we add to these about 15,000 Samaritans, the calculation in round numbers will be about 3,181,000. This was the report in 1835—the numbers probably remain the same.—*Blackwood.*

The Jews' Love of Judea.—The most interesting circumstance which presents itself to my mind, in recalling what I saw of the Hebrew nation of the East, is the universal diffusion of the love, the undying love of the Jews for their own Judea, the Canaan of their fathers. Who could see, without emotion, thousands of poor Israelites, who from the remotest parts of Europe have made their way, by long and weary pilgrimage—through privations incalculable, and sufferings without end—often shoeless and almost clotheless—friendless, penniless, that they might see the city of David, and lay their bones in the bosom of Jerusalem. What multitudes are there among them who have sold their last possession—having gathered together their little, their insufficient all—and have started, marching towards the rising sun, from the Vistula, the Dnieper, and the Danube, on a journey as long, as perilous. How many have perished, exhausted on their way! How many have sunk in sight of the Mount of Olives! and how many have closed their eyes in peace and blessedness when the privilege has been vouchsafed to them of treading within the walls of Salem!—*Dr Bowring.*

"*My Mother learned me to work.*"—Such was the remark of one of our Boston matrons, who had graced the first circle of society, whose husband was reputed to be rich, but who in the great commercial pressure of '37 had, in common with many others of his class, all the profits of years swept away. "My mother learned me to work"—and her face looked as happy in her cheap lodgings, as ever it did when surrounded by the paraphernalia of luxury and pride. Such a wife is a treasure;—but what would she have been, had not her mother learned her to work?—*Boston Times.*

Don't sleep with your Grandmother—transferring of vital power.—A not uncommon cause of the loss of vital powers is the young sleeping with the aged. The fact, however explained, has long been remarked, and it is well known to every unprejudiced observer. But it has been most unaccountably overlooked in medicine. I have, on several occasions, met with the counterpart of the following case:—I was a few years since consulted about a pale, sickly, and thin boy, of about five or six years. He appeared to have no specific ailment, but there was a slow and remarkable decline of flesh and strength, and of the energy of all the functions, which his mother very aptly termed a gradual blight. After inquiring into the history of the case, it came out that he had been a robust and plethoric child up to his third year, when his grandmother, a very aged person, took him to sleep with her; that he soon after lost his good looks; and he had continued to decline ever since, notwithstanding medicinal treatment. I directed him to sleep apart from the aged parent, and prescribed change of air, &c. The recovery was rapid. It is not with children only that debility is induced by this mode of abstracting vital power. Those in good health should never sleep with sickly persons.

Consolation of Deism.—M. Trochin, Voltaire's physician, told some friends of his, that on his last attendance upon this celebrated writer, a few hours before his death, he heard him cry out in great agitation, "I die abandoned by God and man." "I wished from my heart," added M. Trochin, "that all those persons who had been seduced by Voltaire's writings, had been witnesses of his death."

Coal in England.—Her coal is eighteen hundred feet below the surface of the earth. As late as the thirteenth century, coal was prohibited by royal proclamation from being burned in London, because it was a public nuisance! *Now*, the quantity used in that city annually, is not less than 2,500,000 tons for fuel, and 230,000 tons for gas.

FOR SALE OR TO LET.

A wooden two story house, with six acres of fertile land, situated in Medford, within half a mile of the village. Said house contains four rooms on the first floor and six chambers. The premises are plentifully supplied, with a variety of choice fruit trees, in a thrifty and bearing condition.

A portion of the land is a superior location for a shipyard. The above is a pleasant and desirable place for a country residence.

For terms inquire of JONATHAN BROOKS, near the premises, or WILLIAM BRIGHAM, No. 35 Court Street, Boston.

March 25.

SINA SILK WORMS EGGS.

The Eggs of the celebrated Sina Silk Worm, now offered for sale, were raised in 1839 by M. Camille Beauvais, superintendent of the experimental silk farm, established near Paris, by the government of France. The Sina Silk Worm was introduced to France from China by Louis XVI. in 1784, and has been proved by M. Beauvais to be superior to all other silk worms. They are also stated to possess the precious property of hatching simultaneously. Just received, by the subscriber, from the Chevalier Bodin, who is the only agent for their sale in France.

Each sheet contains an ounce and is signed "Camille Beauvais." Price $3.

WILLIAM KENRICK, Newton.

Or apply to JOSEPH BRECK & CO.

March 25. eptf

BROUSSA MULBERRY SEED.

We have recently received 50 lbs. fresh Broussa Mulberry Seed, which we offer by the ounce or pound.

March 11. JOSEPH BRECK & CO.

AGRICULTURAL AND HORTICULTURAL TOOLS.

Just received, at the New England Agricultural Warehouse and Seed Store, No. 51 and 52 North Market Street, per Ship Chatam, from England, a splendid assortment of Agricultural and Horticultural Implements, viz.

100	dozen	best Cast Steel Sickles.
50	"	stout Cast Steel Briar Hooks.
25	"	Breaking up Hoes.
5	"	Pruning Chisels with Saws.
20	"	pair Grass Shears.
25	"	pair Pruning Shears, with slides.
25	"	pair Ladies Ivory handle do. do.
25	"	pair Ladies Coco do. do.
5	"	Large Hedge Shears.
25	"	Wakefield's Pruning Shears, with slides.
10	"	Vine Shears.
50	"	Large Pruning Knives.
25	"	Budding do. do
15	"	Cast Steel Edging do.
5	"	" " Hay do.
40	"	" " Garden Trowels.
20	"	Bill Hooks.
10	"	Furze Bills.
10	"	Gentlemens Bright Bills.
5	"	" Horticultural Hatchets.
50	"	Dutch Hoes.

April 1. JOSEPH BRECK & CO.

SILK WORMS EGGS.

Just received, a few ounces of Silk Worms Eggs, from Smyrna, said to be of a superior variety. Price $3 per ounce, clean seed. JOSEPH BRECK & CO.

April 1.

FOR SALE OR EXCHANGE.

A valuable farm in Harvard, County of Worcester, the well known Bromfield Place; an excellant dairy farm, well wooded, the house spacious, fitted for two distinct families. The situation among the most pleasant to be found, especially for aprivate or High School. Bordering a part of the farm is a beautiful sheet of water, containing two islands belonging to the estate. Inquire of the Subscriber at South Natick.

March 4, 1840. I. H. T. BLANCHARD.

Green House Plants.

Green House Plants of every description furnished at short notice, and well boxed, so that they may be sent to any part of the country in safety.

March 11. JOSEPH BRECK & CO.

BOX FOR EDGINGS.

JOSEPH BRECK & CO. have for sale 500 yards of Box for edgings, in prime order; price 37½ cents per yard; every yard will make two when reset.

Giant and Early Wilmot Rhubard.

Roots of extra large size at 25 cents per root, for sale by JOSEPH BRECK & CO.

White Silesia Sugar Beet Seed.

1000 lb. of the genuine White Silesia Sugar Beet Seed; the best variety for the production of Beet Sugar and warranted to be pure from mixture.

For sale by JOSEPH BRECK & CO. No. 52 North Market Street. Boston, March 4, 1840.

GARDEN MATS.

For sale at the New England Farmer, 100 dozen Garden Mats, of extra quality, for covering hot beds, &c.

Feb. 12. JOSEPH BRECK & CO.

BEAN POLES.

500 dozen of Bean and Dahlia Poles, for sale by MOSES FRENCH, Maine Wharf, Broad Street, near the bottom of Summer St.

April 15. 4t

ROHAN POTATOES,

For sale at the New England Agricultural Warehouse and Seed Store, No. 52 North Market Street, at $4 per barrel, $2 per bushel.

October 16. JOSEPH BRECK & CO.

Buckthorns.

Buckthorns for Hedges, for sale by JOSEPH BRECK & CO. from 20 to $30 per thousand, according to size and age.

March 25.

THE NEW ENGLAND FARMER

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